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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/823,871	04/14/2004	Andrew T. Davis	101	6176

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LAW OFFICE OF DAVID H. JUDSON  
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DALLAS, TX 75248

EXAMINER

MIRZA, ADNAN M

ART UNIT

PAPER NUMBER

2445

NOTIFICATION DATE

DELIVERY MODE

10/17/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mail@davidjudson.com

### Office Action Summary

**Application No.**

10/823,871

**Applicant(s)**

DAVIS ET AL.

**Examiner**

ADNAN M. MIRZA

**Art Unit**

2145

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 19-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 19-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SI/02)  
Paper No(s)/Mail Date 07/23/2008
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 19-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Melochione et al (U.S. 2004/0006586) and further in view of Ulrich et al (U.S. 7,054,927).

As per claim 19 Melochione disclosed a method operative in a content delivery network (CDN) including a set of CDN servers, each CDN server provisioned with a manager process together with an application server on which one or more web applications are capable of being loaded and executed, comprising: for each CDN server and its respective manager process,

However Melochione did not disclose in detail identifying the values for (i) a flit- capacity, and (ii) a memory capacity, where a flit is an arbitrary unit of work representing resource usage on the CDN server; using the values to generate a weighted mapping of web applications to manager processes for the set of CDN servers such that the flit and memory capacities for each CDN server are not exceeded; and servicing requests at the CDN servers in proportion to the weighted mapping.

In the same field of endeavor Ulrich disclosed, "The predictions for future workload can be used to proactively manage resources to improve performance and capacity usage" One mechanism used to reallocate server workload is the movement and replication of content files such that server and storage utilization is balanced. Some degree of cooperation from client machines can be used to provide more effective load balancing, but client cooperation is not strictly required. (col. 15, lines 55-63).

It would have been obvious to one having ordinary skill in the art at the time of the invention was made to have incorporated the predictions for future workload can be used to proactively manage resources to improve performance and capacity usage" One mechanism used to reallocate server workload is the movement and replication of content files such that server and storage utilization is balanced. Some degree of cooperation from client machines can be used to provide more effective load balancing, but client cooperation is not strictly required as taught by Ulrich in the method and system Melochione to improve the task performance in terms of processing with out having a Hang up network.

2. As per claim 20 Melochione-Ulrich disclosed wherein the weighted mapping of web applications to manager processes is also a function of application server memory capacity on each CDN server (Ulrich, col. 8, lines 1-12).

3. As per claim 21 Melochione-Ulrich disclosed wherein the weighted mapping of web applications to manager processes balances flits across the set of CDN servers (Ulrich, col. 7,

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lines 32-66).

4. As per claim 22 Melochione-Ulrich disclosed further including the step of re-generating the weighted mapping of web applications to manager processes for the set of CDN servers if the flit values across the set of CDN servers becomes unbalanced (Ulrich, col. 8, lines 25-34).

5. As per claim 23 Melochione-Ulrich disclosed wherein the flit represents non-bandwidth resource usage at a CDN server (Ulrich, col. 7, lines 52-67).

6. As per claim 24 Melochione-Ulrich disclosed wherein the flit is CPU utilization (Ulrich, col. 52-67).

7. As per claim 25 Melochione-Ulrich disclosed wherein the weighted mapping of web applications to manager processes requires a given web application to be loaded onto the CDN server (Ulrich, col. 69, lines 12-39).

8. As per claim 26 Melochione-Ulrich disclosed wherein the weighted mapping of web applications to manager processes requires a given web application to be unloaded from the CDN server (Ulrich, col. 69, lines 12-39).

9. As per claim 27 Melochione-Ulrich disclosed wherein the set of CDN servers are co-located (Ulrich, col. 8, lines 25-34).

10. As per claim 28 Melochione-Ulrich disclosed wherein a given request is serviced at by an instance of a web application loaded and executing on a given CDN server (Ulrich, col. 69, lines 12-39).

***Response to Arguments***

11. Applicant's arguments with respect to claims 19-28 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

12. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Adnan Mirza whose telephone number is (571)-272-3885.

13. The examiner can normally be reached on Monday to Friday during normal business hours. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Cardone can be reached on (571)-272-3933. The fax for this group is (703)-746-7239. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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14. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866)-217-9197 (toll-free).

/Adnan M Mirza/

Examiner, Art Unit 2145

/Jason D Cardone/  
Supervisory Patent Examiner, Art Unit 2445